



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

DAVID P. LITTELL
COMMISSIONER

The Lane Construction Corporation
Cumberland County
Westbrook, Maine
A-447-71-J-A (SM)

Departmental
Findings of Fact and Order
Air Emission License
Amendment #1

After review of the air emission license amendment application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., §344 and §590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

1. The Lane Construction Corporation (Lane) of Westbrook, Maine was issued Air Emission License A-447-71-I-R/A on 8 February 2007, permitting the operation of generating units.
2. Lane has requested an amendment to their license in order to add #74 Drum Mix Asphalt Plant and the HYCGO-200 hot oil heater, and to delete the use of #2 fuel oil in the Genset 3412.
3. The generating units were previously located in Hermon. All equipment addressed in the license and this amendment will now be located at 95 Warren Avenue, Westbrook.

B. Emission Equipment

Asphalt Plant

<u>Equipment</u>	<u>Process Rate (TPH)</u>	<u>Design Capacity Firing Rate</u>	<u>Control Devices</u>	<u>Stack ID</u>	<u>Date of Manu- facture</u>
#74 Drum mix asphalt plant	350	100 MMBtu/hr, #2 fuel oil, 0.5% S; Spec. Waste Oil, 0.7% S.	Baghouse	74	1994

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04679-2094
(207) 764-0477 FAX: (207) 760-3143

Diesel Units

<u>Source ID</u>	<u>Max. Capacity</u> MMBtu/hr	<u>Max. Firing</u> Rate	<u>Fuel Type</u>
Genset 3412	6.6	48.2 gal/hr	Diesel fuel, 0.05% sulfur
Diesel #1 *	0.41	2.95 gal/hr	Diesel fuel, 0.05% sulfur

*Included for equipment completeness purposes only

Heating Equipment

<u>Equipment</u>	<u>Maximum</u> <u>Capacity</u>	<u>Fuel Type</u>	<u>Maximum</u> <u>Firing Rate</u>
HYCGO 200	2.1 MMBtu/hr	#2 fuel oil, 0.5% S; spec. waste. oil, 0.7% S	15 gal/hr

Storage Silos

<u>Source ID</u>	<u>Storage Capacity</u>	<u>Date of</u> <u>Installation</u>	<u>Control Device</u>
Hot Mix Silo #1	200 Tons	2010	N/A
Hot Mix Silo #2	200 Tons	2010	N/A

C. Application Classification

The modification of a minor source is considered a major modification based on whether or not expected emission increases exceed the "Significant Emission Levels" as defined in the Department's regulations. The emission increases are determined by subtracting the current licensed emissions preceding the modification from the maximum future licensed allowed emissions, as follows:

<u>Pollutant</u>	<u>Current</u> <u>License</u> (TPY)	<u>Future</u> <u>License</u> (TPY)	<u>Net Change</u> (TPY)	<u>Sig. Level</u>
PM	0.8	7.2	6.4	100
PM ₁₀	0.8	7.2	6.4	100
SO ₂	3.5	47.2	46.9	100
NO _x	22.1	34.7	12.8	100
CO	5.9	36.1	30.3	100
VOC	0.7	8.1	7.5	50

This modification is determined to be a minor modification and has been processed as such.

With the fuel limit on the boilers, asphalt plant and the generator, Lane is licensed below the major source thresholds and is considered a Synthetic Minor.

II. BEST PRACTICAL TREATMENT

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 CMR 100 (last amended December 24, 2005). Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in 06-096 CMR 100. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. Asphalt Plant

The drum mix asphalt plant was installed in 2010 and is therefore subject to EPA New Source Performance Standards (NSPS) Subpart I for Hot Mix Asphalt Facilities manufactured after June 11, 1973. The initial performance test was carried out on this Asphalt Plant on 1 September 1994, in Chantilly, Virginia.

The drum mix asphalt plant fires #2 fuel oil with a sulfur content not to exceed 0.5% by weight and specification waste oil, with a sulfur content not to exceed 0.7% by weight. Fuel use shall not exceed 950,000 gallons per year, based on a 12-month rolling total.

To meet the requirements of Best Practical Treatment (BPT) and NSPS for the control of particulate matter (PM) emissions, the drum mix asphalt plant shall vent to a baghouse. Opacity from the asphalt batch plant baghouse is limited to no greater than 20% on a six (6) minute block average basis, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period.

Based on the above hot mix asphalt plant process rate, the maximum emission rate from the asphalt baghouse shall be limited to 0.03 grs/dscf (9.65 lb/hr).

The performance of the baghouse shall be constantly monitored by either one of the following at all times the drum mix asphalt plant is operating:

1. PM detector – when the detector signals excessive PM concentrations in the exhaust stream, Lane shall take corrective action within 24 hours, or immediately if opacity exceeds 20%.
2. Personnel with a current EPA Method 9 visible emissions certification – when the opacity exceeds 20%, the hot mix asphalt plant is operating with insufficient control and corrective action shall be taken immediately.

General process emissions from the asphalt plant shall be controlled so as to prevent visible emissions in excess of 20% opacity on a six (6) minute block average basis except for no more than one (1) six (6) minute block average in a 1-hour period.

Lane may process up to 10,000 cubic yards per year of soil contaminated by gasoline or #2 fuel oil without prior approval from the Department. This limit may be exceeded with written authorization from the Department. The plant owner or operator shall notify the Department at least 24 hours prior to processing the contaminated soil and specify the contaminating fuel and quantity, origin of the soil and fuel and the disposition of the contaminated soil.

C. Stock Piles and Roadways

Visible emissions from a fugitive emission source shall not exceed 20% opacity, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20% in any one (1) hour.

D. Diesel Unit

Genset 3412 has an approximate power rating of 940 HP based on heat input of 6.6 MMBtu/hr and 35 % efficiency.

A summary of the BPT analysis for the Genset 3412 is the following:

1. The total fuel use for the unit shall not exceed 100,000 gallons per year of diesel fuel with a maximum sulfur content not to exceed 0.05% by weight, based on a 12-month rolling total.
2. SO₂ emissions are based on fuel sulfur mass balance.
3. The PM and PM₁₀ limits are derived from 06-096 CMR 103.
4. NO_x, CO, and VOC emission limits are based upon AP-42 data dated 10/96 for diesel engines greater than 600 horsepower.
5. Visible emissions from the generators shall each not exceed 20% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period.

E. HYCGO-200 Hot Oil Heater

The HYCGO-200 Heater has a heat input capacity of 2.1 MMBtu/hr and draws fuel from the same tank as the asphalt plant (ASTM D396 compliant #2 fuel oil with a maximum sulfur content of 0.5% by weight and specification waste oil with a maximum sulfur content of 0.7%, by weight). The heater has a heat input less than 10 MMBtu/hr and is therefore not subject to NSPS Subpart Dc.

A summary of BPT is detailed below:

1. Combined fuel use in the HYCGO-200 Heater and the Asphalt Plant shall not exceed 950,000 gallons of fuel per year, based on a 12-month rolling total.
2. 06-096 CMR 106 regulates fuel sulfur content, however, the use of 0.5% sulfur by weight for #2 fuel oil and 0.7% by weight for specification waste oil is BPT.
3. SO₂ emission data is based on fuel sulfur mass balance.
4. PM and PM₁₀ emission rates are based on BPT of 0.12 lb/MMBtu.
5. NO_x, CO and VOC emission rates were based on AP-42 data dated 10/98 for boilers with a heat input less than 100 MMBtu/hr.
6. Opacity from the Hot Oil Heater shall not exceed 20% on a six (6) minute block average basis, except for one (1) six (6) minute block average in a 3-hour period.

F. Facility Emissions

Lane shall be restricted to the following annual emissions, based on the following limitations:

- an annual limit of 950,000 gallons, combined, of ASTM D396 compliant #2 fuel oil with a maximum sulfur content of 0.5% by weight, and specification waste oil with a maximum sulfur content of 0.7% by weight, based on a 12-month rolling total, fired in the Asphalt Plant and Hot Oil Heater;
- an annual limit of 100,000 gallons of diesel fuel with a maximum sulfur content of 0.05% by weight, based on a 12-month rolling total, fired in the generator.

Total Licensed Annual Emissions for the Facility

Tons per Year

(Used to calculate the annual license fee)

	PM	PM ₁₀	SO ₂	NO _x	CO	VOC
Asphalt Plant & Hot Oil Heater	6.42	6.42	46.88	12.80	30.26	7.45
Genset 3412	0.82	0.82	0.35	21.92	5.82	0.62
Total TPY	7.2	7.2	47.2	34.7	36.1	8.1

III.AMBIENT AIR QUALITY ANALYSIS

According to 06-096 CMR 115, the level of air quality analyses required for a renewal source shall be determined on a case-by-case basis. Modeling and monitoring are not required of a renewal if the total emissions of any pollutant released do not exceed the following:

<u>Pollutant</u>	<u>TPY</u>
PM	25
PM ₁₀	25
SO ₂	50
NO _x	100
CO	250

Based on the total facility licensed emissions, Lane is below the emissions level required for modeling and monitoring.

ORDER

Based on the above Findings and subject to conditions listed below the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-447-71-J-A, subject to the conditions found in Air Emission A-447-71-I-R/A and in the following conditions:

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions. [06-096 CMR 115]
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [06-096 CMR 115]
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 CMR 115]

- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 CMR 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to 38 M.R.S.A. § 353. [06-096 CMR 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 CMR 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 CMR 115]
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 CMR 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [06-096 CMR 115]
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [06-096 CMR 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:

- A. perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 - 1. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 - 2. pursuant to any other requirement of this license to perform stack testing.
- B. install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
- C. submit a written report to the Department within thirty (30) days from date of test completion.

[06-096 CMR 115]

- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:

- A. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
- B. the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
- C. the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

[06-096 CMR 115]

- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 CMR 115]

- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [06-096 CMR 115]
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 CMR 115]

SPECIFIC CONDITIONS

(16) Drum Mix Asphalt Plant

- A. Emissions from the drum mix asphalt plant shall vent to a baghouse, and all components of the asphalt plant shall be maintained so as to prevent PM leaks. [06-096 CMR 115, BPT]
- B. The performance of the baghouse shall be constantly monitored by either one of the following at all times the drum mix asphalt plant is operating [06-096 CMR 115, BPT]:
1. PM detector – when the detector signals excessive PM concentrations in the exhaust stream, Lane shall take corrective action within 24 hours, or immediately if opacity exceeds 20%.
 2. Personnel with a current EPA Method 9 visible emissions certification – when the opacity exceeds 20%, the asphalt plant is operating with insufficient control and corrective action shall be taken immediately.
- C. To document maintenance of the baghouse, the licensee shall keep a maintenance log recording the date and location of all bag failures as well as all routine maintenance. The maintenance log shall be kept on-site at the asphalt plant location. [06-096 CMR 115, BPT]
- D. Opacity from the baghouse is limited to no greater than 20% on a six (6) minute block average basis, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period. [06-096 CMR 101]

- E. General process emissions from the asphalt plant shall be controlled so as to prevent visible emissions in excess of 20% opacity on a six (6) minute block average basis except for no more than one (1) six (6) minute block average in a 1-hour period. [06-096 CMR 101]
- F. Fuel use records and receipts for the asphalt drum mix asphalt plant shall be maintained for at least six years and made available to the Department upon request. A log shall also be maintained recording the quantity and analyzed test results of all specification waste oil in the dryer. [06-096 CMR 115, BPT]
- G. Lane shall be limited to the use of 950,000 gallons per year combined, of #2 fuel oil with a sulfur content not to exceed 0.5% and specification waste oil, with a sulfur content not to exceed 0.7% in the drum mix asphalt plant and the HYCGO-200 heater. Fuel use shall be on a 12-month rolling total basis. Emissions from the baghouse shall not exceed the following [06-096 CMR 115, BPT]:

<u>Pollutant</u>	<u>grs/dscf</u>	<u>lb/hr</u>
PM	0.03	9.65
PM ₁₀	-	9.65
SO ₂	-	70.50
NO _x	-	19.05
CO	-	45.50
VOC	-	11.20

- H. Lane may process up to 10,000 cubic yards per year of soil contaminated by gasoline or #2 fuel oil without prior approval from the Department. This limit may be exceeded with written authorization from the Department. The plant owner or operator shall notify the Department at least 24 hours prior to processing the contaminated soil and specify the contaminating fuel and quantity, origin of the soil and fuel and the disposition of the contaminated soil. [38 MSRA §608-A, and 06-096 CMR.115, BPT]

(17) **Diesel Unit**

- A. Total fuel use for Genset 3412 shall not exceed 100,000 gallons per year of diesel fuel oil with a maximum sulfur content not to exceed 0.05% by weight. Compliance shall be based on fuel receipts from the supplier showing the quantity of fuel delivered and the percent sulfur of the fuel. Records of fuel use shall be kept on a monthly and 12-month rolling total. 06-096 CMR 115, BPT]

B. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Genset 3412	PM	0.12	06-096 CMR 103(2)(B)(1)(a)

C. Emissions shall not exceed the following [06-096 CMR 115, BPT]:

Emission Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Genset 3412	0.79	0.79	0.34	21.12	5.61	0.59

D. Visible emissions from Genset 3412 shall not exceed 20% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period. [06-096 CMR 101]

(18) **HYCGO-200 Hot Oil Heater**

A. Emissions from the HYCGO-200 Hot Oil Heater shall not exceed the following [06-096 CMR 115, BPT]:

Emission Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
HYCGO Heater	0.25	0.25	1.48	0.83	0.08	0.01

B. Visible emissions from the hot oil heater shall not exceed 20% opacity on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a three-hour period. [06-096 CMR 101]

C. Fuel use in the hot oil heater is detailed in Condition 16(G) due to the shared fuel tank with the asphalt plant. [06-096 CMR 115, BPT]

(19) **Stockpiles and Roadways**

Visible emissions from a fugitive emission source shall not exceed 20% opacity, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20% in any one (1) hour. [06-096 CMR 101]

(20) **Equipment Relocation** [06-096 CMR 115, BPT]

- A. Lane shall notify the Bureau of Air Quality, by a written notification at least 48 hours prior to relocation of any equipment carried on this license. Written notice may be sent by mail, facsimile (fax), or e-mail. Notification sent by mail shall be sent to the address below or to a Department Regional Office:

Attn: Relocation Notice
Maine DEP
Bureau of Air Quality
17 State House Station
Augusta, ME 04333-0017

Equipment relocation notification can also be done on-line with e-notice at www.maine.gov/dep/air/compliance/forms/relocation.

The notification shall include the address of the equipment's new location, an identification of the equipment and the license number pertaining to the relocated equipment.

- B. Written notification shall also be made to the municipality where the equipment will be relocated, except in the case of an unorganized territory where notification will be made to the respective county commissioners.
- (21) Lane shall keep a copy of this Order on site, and have the operator(s) be familiar with the terms of this Order. [06-096 CMR 115, BPT]
- (22) The Hot Mix Asphalt Plant is subject to 40 CFR Part 60 Subparts A, and I and Lane shall comply with the notification and recordkeeping requirements of 40 CFR Part 60.7.

(23) **Annual Emission Statement**

In accordance with *Emission Statements*, 06-096 CMR 137 (last amended November 8, 2008), the licensee shall annually report to the Department the information necessary to accurately update the State's emission inventory by means of:

- 1) A computer program and accompanying instructions supplied by the Department; or
- 2) A written emission statement containing the information required in 06-096 CMR 137.

The emission statement must be submitted by the date specified in 06-096 CMR 137.

- (24) Lane shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard [38 M.R.S.A. §605-C].

DONE AND DATED IN AUGUSTA, MAINE THIS 21st DAY OF May, 2010.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: James P. Little
DAVID P. LITTELL, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-447-71-I-R/A.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 04/07/2010

Date of application acceptance: 04/08/2010

Date filed with the Board of Environmental Protection:

This Order prepared by N. Lynn Cornfield, Bureau of Air Quality.

